A2058
RAM EXPANSION
TECH DATA

OCTOBER, 1988 PN-314881-01

commodore
COMPUTERS

E22/3-5.2

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2058 8MB RAM EXPANSION BOARD SPECIFICATIONS

The 2058 Expansion RAM Board is a memory expansion board which plugs into the A2000 expansion slots. This board is auto-config compatible and can be configured as 8MB, 4MB or 2MB of fast memory. Upon initialization of the A2000 the expansion RAM board is interrogated to determine its memory size. J1 and J2 along with the auto-config hardware determines the memory size of the board and pass this information to the Amiga OS. Memory configuration is determined as follows:

J1	J2	Memory Size	RAM Ref. #
OPEN	OPEN	8 MBYTES	INSTALL ALL 64 RAMS U15-U78
OPEN	SHORT	* — NO AUTO-CONFIG. — *	
SHORT	OPEN	*4 MBYTES	INSTALL — U15-U30, U47-U62
SHORT	SHORT	2 MYBTES	INSTALL — U15, U17, U19, U21, U23, U25, U27, U29, U47-U54

**NO AUTO-CONFIG: When J1 is open and J2 is shorted the boards auto-config hardware is disabled. This is a board diagnostic mode only and allows the board to be auto-configed independently of the Amiga OS. Once the board and machine have been powered up and software loaded, the RAM board can be auto-configed by removing J2 and loading the base address register with the desired memory location.

I/O Definitions

The following I/O addresses refer only to the offset locations since the Actual board location in physical memory is configurable as described in the Amiga Expansion architecture manual. Refer to this manual for details on the auto-config I/O descriptions. I/O locations 0 hex through 16 hex are written out as nybbles or 4 data bits (AD12-AD15). I/O locations 48 hex is written out as a byte (AD8-AD15).

Hex Location	Definition
00/02	Boardtype and Size
04/06	Product Number
08/0A	Parameters
10/12	Mfg # high
14/16	Mfg # low
48/4A	Base Address Register
4C/4E	RAM Board Disable

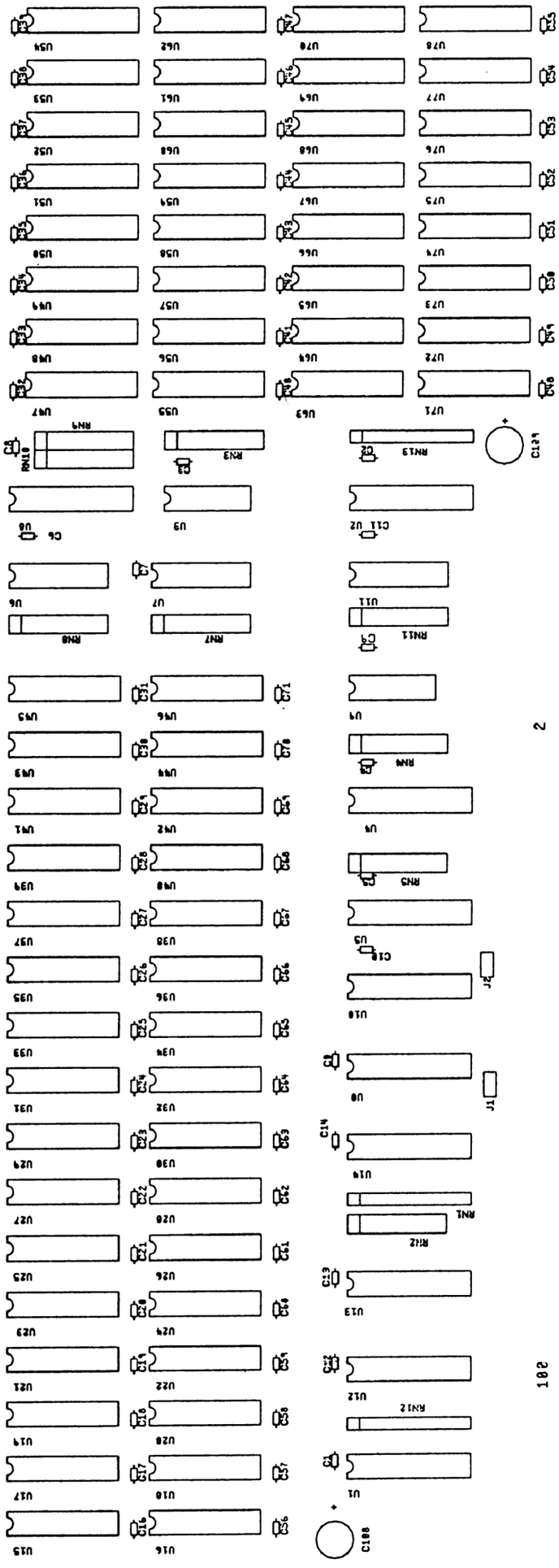
***NOTE:** Only 4 MEG available to 2058, if A2088 installed.

A2058 COMPONENT PARTS LIST

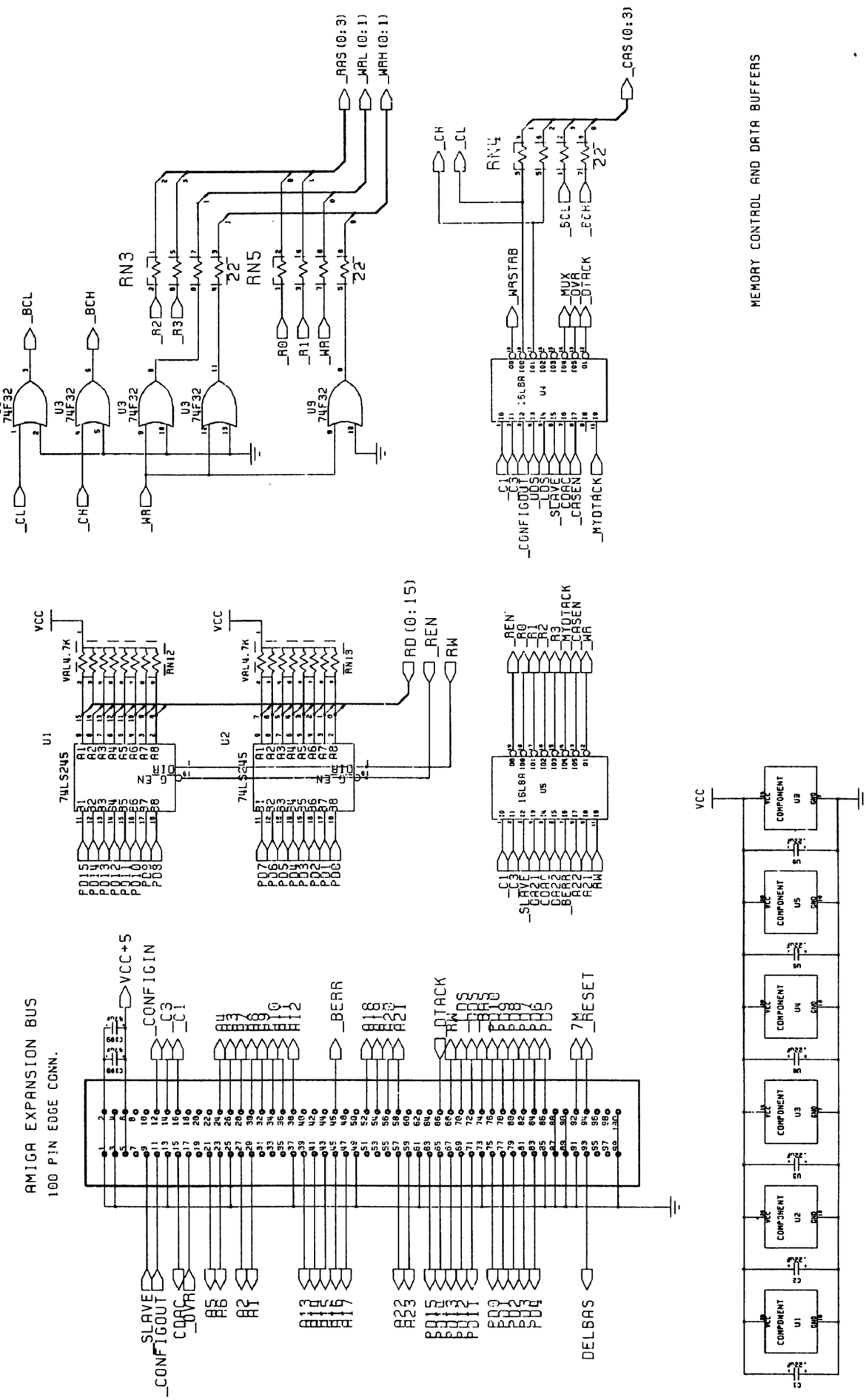
PCB ASSY# 312370

(-01 8MB, -02 4MB, -03 2MB)

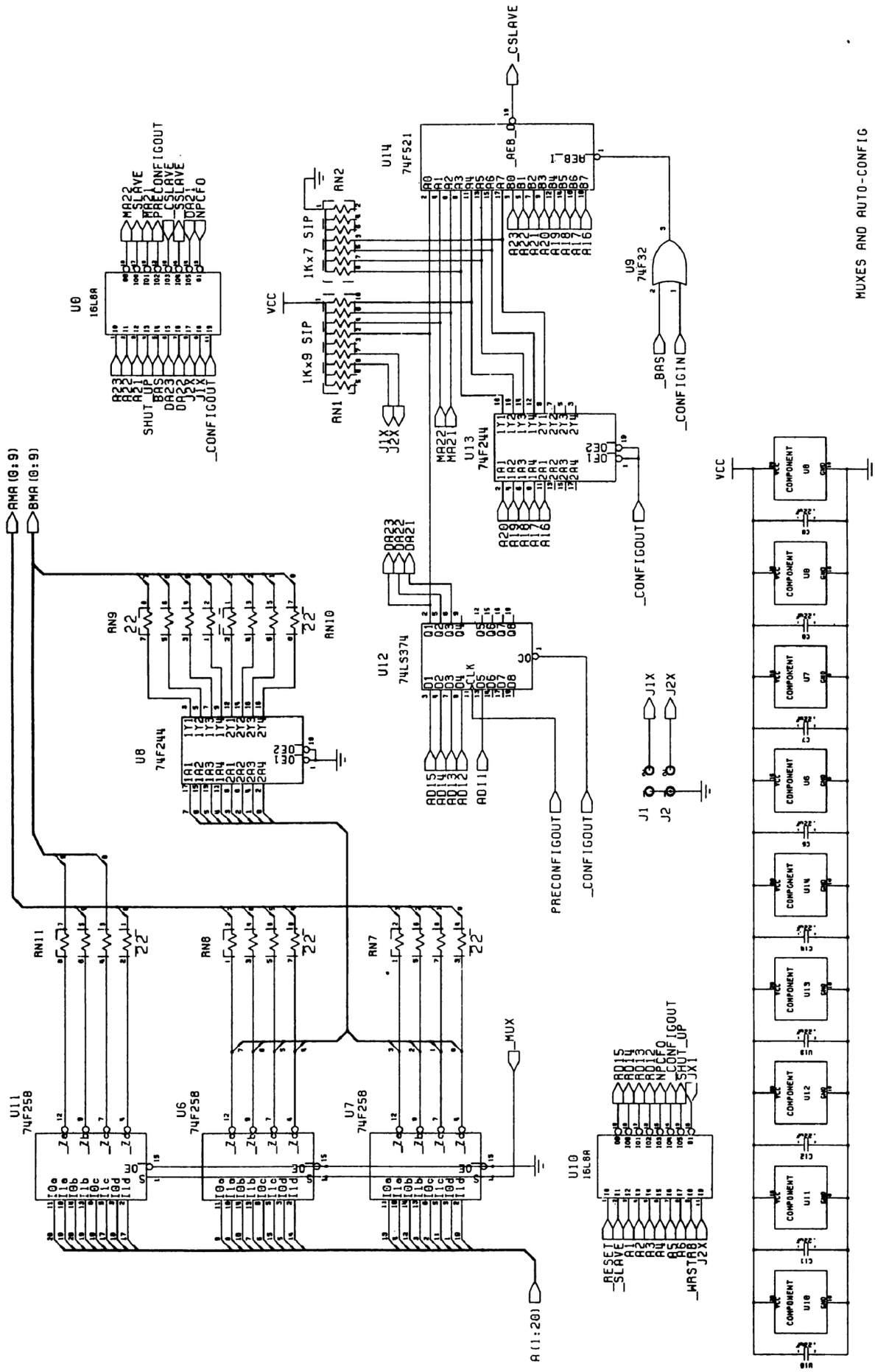
IC COMPONENTS		
390089-01	IC, 74F245	U1, U2
390077-01	IC, 74F32	U3, U9
312364-02	IC, PAL 16L8A ADDR SIZE CNTRL	U0
318068-01	IC, PAL 16L8A CNTRL PAS/CAS W/OVR	U4
318067-01	IC, PAL 16L8A CNTRL RAS/CAS	U5
312363-02	IC, PAL 16L8A AUTO CONFIG CNTRL	U10
318052-01	IC, 74F258	U6, U7, U11
901521-43	IC, 74LS374	U12
318041-01	IC, 74F521	U14
318050-01	IC, 74F244	U8, U13
318076-01	IC, DRAM 1MB X 1	U15-U78 (-01 LOC) U15- U30, U47-U62 (-02 LOC) U15, U17, U21, U23, U25, U27, U29, U47-54 (-03 LOC)
	VENDOR OEM NUMBERS	
	NEC UPD 421000C-10 **OKI M5M511000-10RS**	
RESISTORS		
902442-22	RES NTWK., 1K OHM X 7 SIP, 8 PIN	RN2
902410-10	RES NTWK., 1K OHM X 9 SIP, 10 PIN	RN1
902422-04	RES NTWK., 22 OHM X 4 SIP, 8 PIN	RN3-7, RN9-11
902410-08	RES NTWK., 4.7K OHM X 9 SIP, 10 PIN	RN12, RN13
CAPACITORS		
315034-01	CAP, CERM, MONO, RAD, .22UF, 100V	C0-C14
315034-02	CAP, CERM, MONO, RAD, .33UF, 100V	C16-C71
390101-01	CAP, ELEC, RAD, 47UF, 16V	C108, C109
MISC. COMPONENTS		
904150-07	IC, SOCKET, 18 PIN	U31-46, U62-78 (-02 LOC) U16, U18, U20, U22, U24, U26, U28, U30-46, U55-78 (-03 LOC)
903345-01	CONN, DUAL ROW, .100 IN. CENTER	J1, J2
903326-02	CONN, SINGLE ROW, .100 IN. CENTER	SUB: J1, J2
390043-01	SHUNT, FEMALE, 2-POS, .100 IN. CENTER	-02 INSTALL AT J1, -03 INSTALL AT J1, J2
380120-08	EXTENSION CARD PANEL	
906800-01	SCREW, 3M X 4.0 LG.	



PCB BOARD LAYOUT



SCHEMATIC #312371, REV. B



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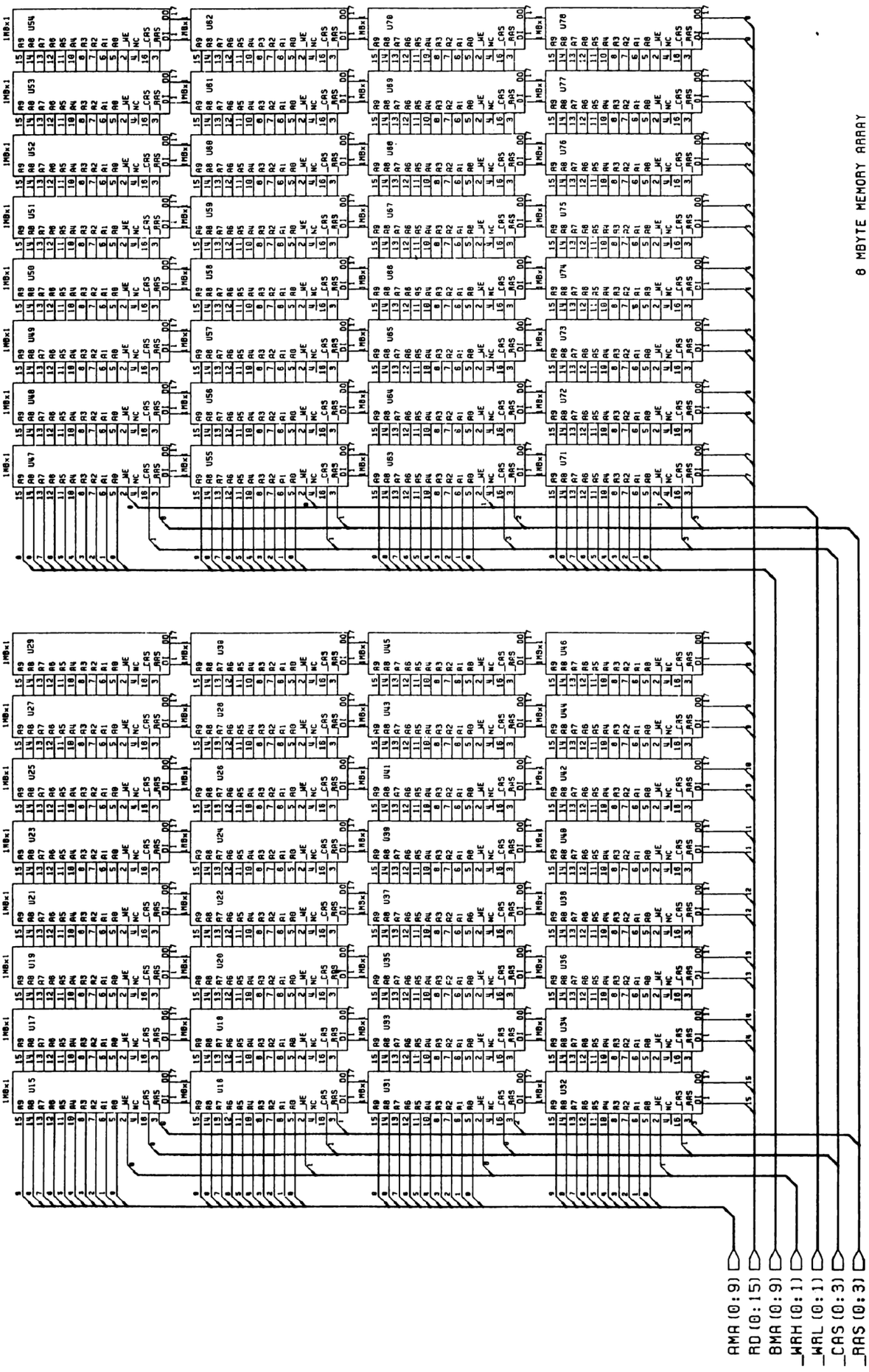

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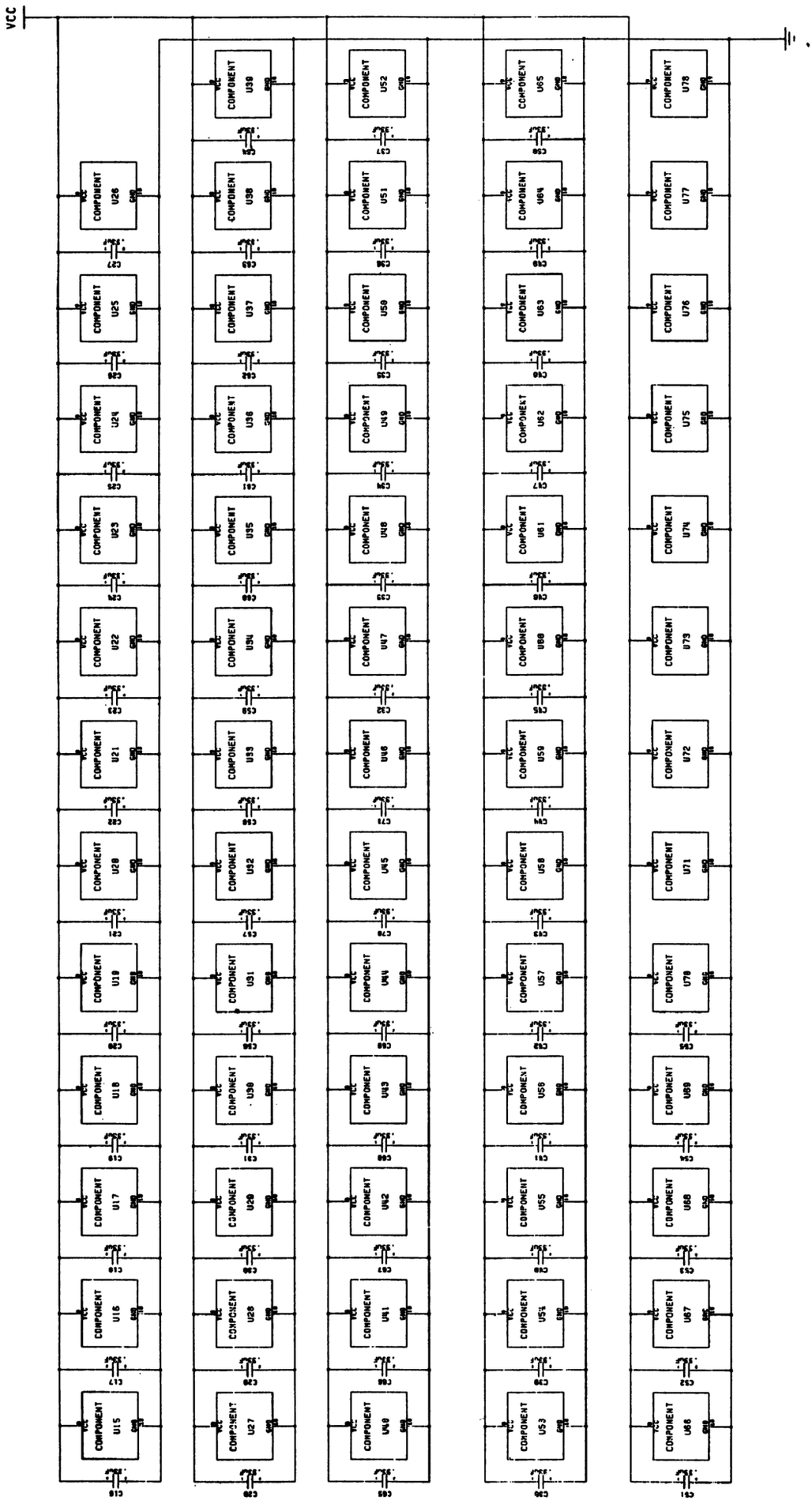

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